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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,190	03/13/2001	Masuyuki Ohta	501.37242CX2	9907

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EXAMINER

NGUYEN, DUNG T

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 04/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/804,190

Applicant(s)

Ohta et al.

Examiner

Dung Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Feb 11, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 2, and 4-8 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 4-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: ☐ approved ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☐ Other: \_\_\_\_\_

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***DETAILED ACTION***

Applicant's amendment and election of Species A in Paper No. 3 is acknowledged.

***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the view angle range of a contrast ratio of at least 10 to 1 is within a range of all directional coverage as tilted by at least 40 degrees from a vertical direction with respect to a display plane (claims 5 and 7) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 5 and 7, it is confusing and unclear what is meant by "a view angle range of a contrast ratio of at least 10 to 1 is within a range of all directional coverage as tilted by at least 40 degrees from a vertical direction with respect to a display plane" (emphasis added). 172

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumiyoshi et al., US Patent No. 5,726,721, in view of Togashi, US Patent No. 4,345,249.

Regarding the above claims, Sumiyoshi et al. disclose an active matrix liquid crystal display (LCD) device (figure 26) comprising:

first and second substrates (19 and 20);

a liquid crystal layer (6)

a plurality of data/scanning signal lines inherently forming on one of first and second substrate;

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a pixel electrode (1) and a common electrode (8);  
alignment layers (23) forming on the first and second substrate; wherein rubbing  
directions of the alignment layers are substantially parallel to each other (e.g., slay).

Sumiyoshi et al. do not disclose that the pixel electrode and the common electrode are formed on the same substrate. However, it is well known to one skilled in the art to form an LCD having a pixel electrode and a common electrode are on the same substrate, namely in-plane switching LCD, as shown by Togashi (see figure 6). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to modify the Sumiyoshi et al. device having the pixel/common electrode on the same substrate in order to simplify an LCD device fabricating process since all of the electrodes of a display panel are formed upon a single substrate (Togashi, Summary of the Invention).

7. Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Togashi, US Patent No. 4,345,249 , in view of Sumiyoshi et al., US Patent No. 5,726,721.

Regarding the above claims, Togashi discloses an active matrix liquid crystal display (LCD) device (figures 6-7) comprising:

first and second substrates (10 and 18);  
a liquid crystal layer (14)  
a plurality of data/scanning signal lines (X, Y) inherently forming on one of first and second substrate;  
a pixel electrode (23) and a common electrode (13) forming on the same substrate;

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alignment layers inherently forming on the first and second substrate.

However, Togashi et al. do not disclose that rubbing directions of the alignment layers on the first and the second substrates are substantially parallel to each other (e.g., splay state).

Sumiyoshi et al. do disclose that alignment layer can be rubbed, so as rubbing directions of the alignment layers on the first and the second substrates are substantially parallel to each other as shown in figure 26 . Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to modify the Togashi's device having rubbing directions of the alignment layers on the first and the second substrates are substantially parallel to each other as shown by Sumiyoshi et al. in order to provide an LCD apparatus capable of giving a uniform display and having a quick response (col. 4, lines 60-63).

#### ***Remark***

Claims 5-8 are not rejected or indicated as allowable over the prior art because the intended scope of these claims is unclear as mentioned in the above rejection.

#### ***Conclusion***


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The fax phone number for this Group is (703) 746-7730.

Any information of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN  
04/18/2002

  
William L. Sikes  
Supervisory Patent Examiner  
Group 2871